

PATENT ABSTRACTS OF JAPAN

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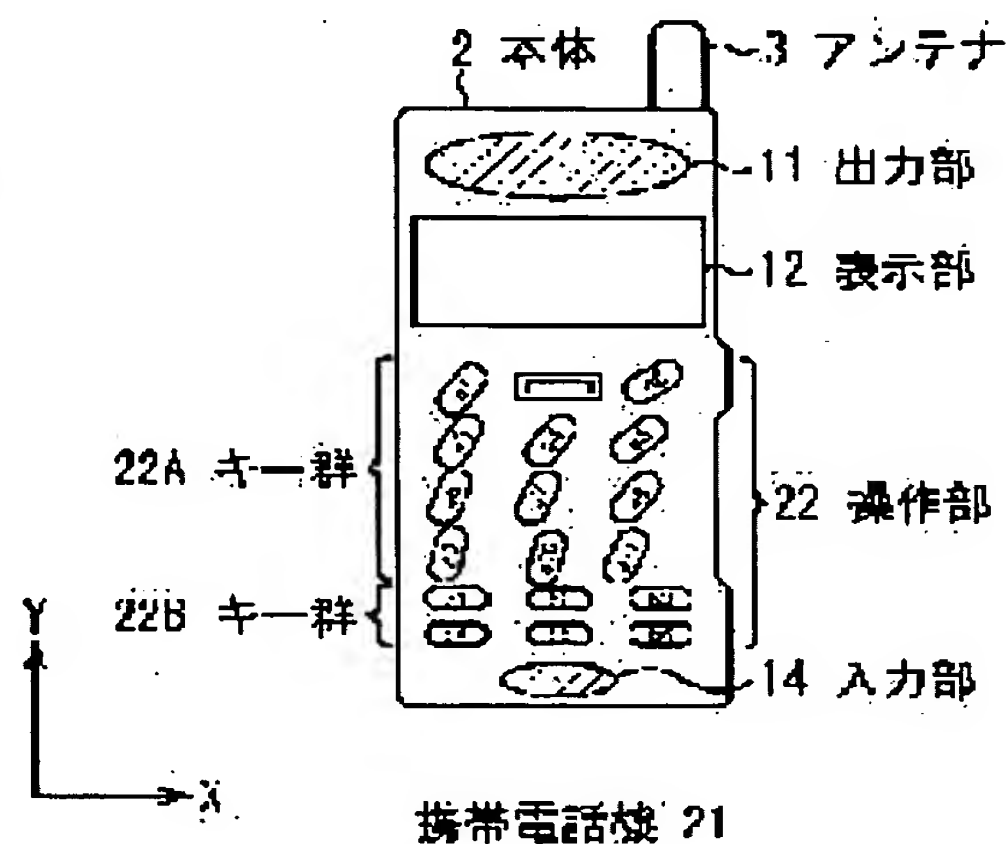
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(54) PORTABLE TELEPHONE

(57)Abstract:

PROBLEM TO BE SOLVED: To properly operate a portable telephone with the thumb.

SOLUTION: The keys a1 to a11 in the group 22A of an operation part 22 are long sideways, and they are arranged such that their longitudinal directions may have specified angles to the direction of an X axis.



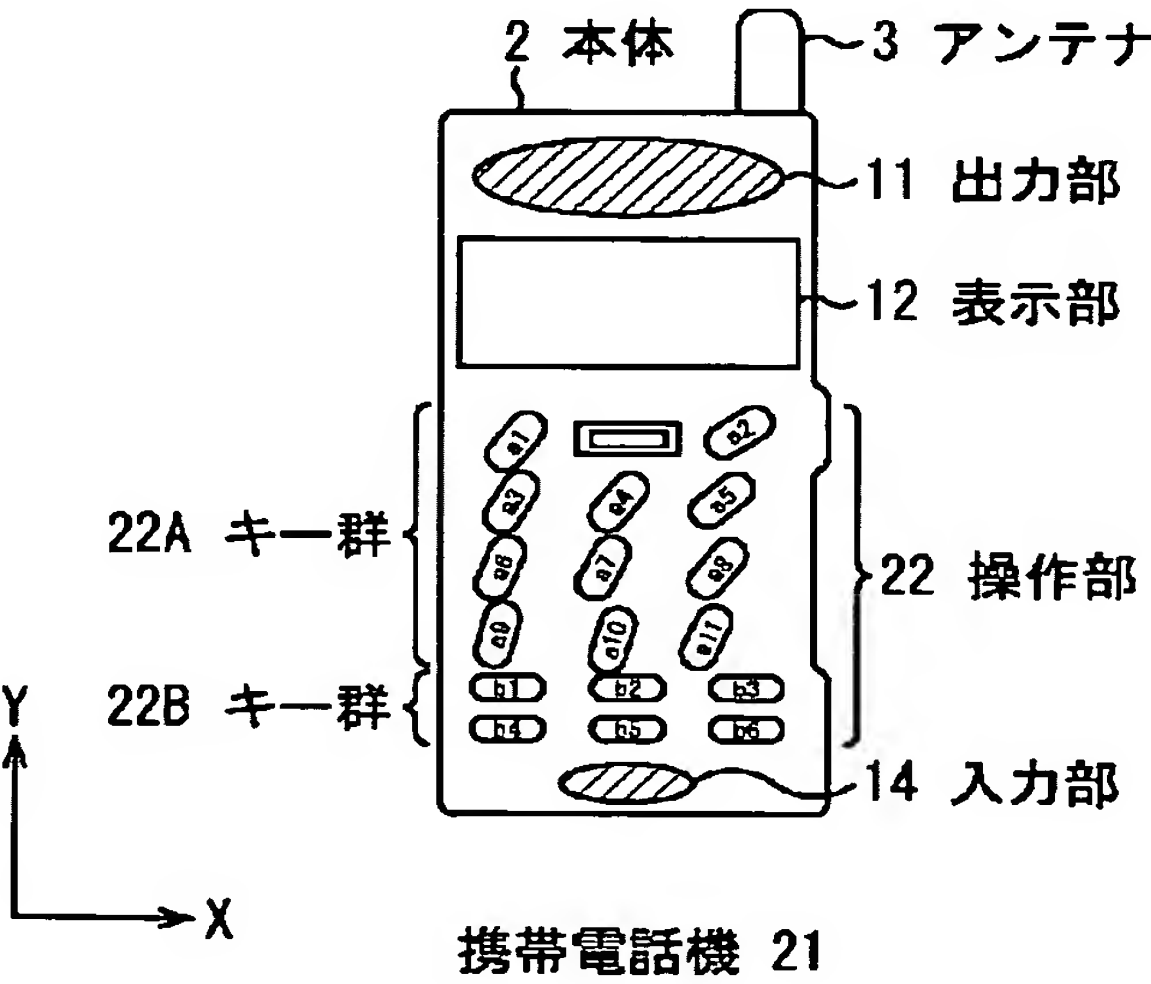
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(54)【発明の名称】 携帯電話機

(57)【要約】
【課題】 携帯電話機を親指で適切に操作することができるようにする。
【解決手段】 操作部22のキー群22Aのキーa1乃至キーa11は、横長の形状で、その長手方向が、X軸方向に対して所定の角度を有するように配置されている。



【特許請求の範囲】

【請求項 1】 ユーザにより、一方の手で保持され、その手の親指で操作される携帯電話機において、音声を出力する出力手段と、音声を入力する入力手段と、ユーザにより親指で操作される操作手段とを備え、前記操作手段は、横長の形状を有し、前記形状の長手方向が、前記親指の付け根部分から先に向かう方向に対してほぼ垂直になるように配置されたキーを有することを特徴とする携帯電話機。

【請求項 2】 前記手で保持されている状態において、前記手があたる部分の厚さが、前記手の形状に対応して、他の部分の厚さより薄く形成されていることを特徴とする請求項 1 に記載の携帯電話機。

【請求項 3】 前記手があたる部分の表面には、突起物が設けられていることを特徴とする請求項 2 に記載の携帯電話機。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】 本発明は、携帯電話機に関し、特に、親指で適切に操作することができるようにした携帯電話機に関する。

【0002】

【従来の技術】 図 1 は、従来の携帯電話機 1 の外観を示している。図 1 (A) は、正面図、図 1 (B) は、左側面図をそれぞれ表している。

【0003】 この携帯電話機 1 は、本体 2 と、本体 2 の上面に取り付けられているアンテナ 3 から構成されている。

【0004】 本体 2 の正面には、上方から下方にかけて、出力部 11、表示部 12、操作部 13、そして入力部 14 が順に配置されている。

【0005】 出力部 11 は、スピーカ等で構成されており、音声を出力する。表示部 12 は、LCD 等で構成されており、ユーザに提示する各種情報を表示する。

【0006】 操作部 13 は、ファンクションキーやテンキーなどのキー a 1 乃至キー a 11 (以下、個々に区別する必要がない場合、単に、キー a と称する。他の場合についても同様である) からなるキー群 13A と、発信、終了、または再ダイヤルキーなどのキー b 1 乃至 b 6 からなるキー群 13B で構成されている。入力部 14 は、マイクロフォン等で構成されており、ユーザの音声を取り込む。

【0007】 図 2 は、携帯電話機 1 の操作部 13 のキー群 13A を操作する場合の親指の状態を示している。

【0008】 ユーザは、このとき、片手 (この例の場合、右手) で携帯電話機 1 を包むように保持する。そしてユーザは、親指の付け根部分を中心に、親指の先端を、円を描くように動かし、親指の先の内側の部分、いわゆる腹の部分所望のキー a に当て、それを押す。こ

のようにして、操作部 13 のキー群 13A は操作される。

【0009】

【発明が解決しようとする課題】 ところで、操作部 13 のキー群 13A の各キー a は、通常、図 1 および、1 つのキー a の拡大図である図 3 に示すように、横長の形状で、その長手方向が、本体 2 の X 軸方向と並行になるように配置されている。

【0010】 すなわち、上述したように、操作部 13 のキー群 13A が操作されると、図 4 に示すように、キー a に対して、親指の腹の部分が斜めにあたるので、キー a を正確に押すことができない。このことから、携帯電話機 1 では、操作部 13 (キー群 13A) を適切に操作することができない課題があった。

【0011】 本発明はこのような状況に鑑みてなされたものであり、操作部 13 を適切に操作することができるようにするものである。

【0012】

【課題を解決するための手段】 本発明の携帯電話機は、音声を出力する出力手段と、音声を入力する入力手段と、ユーザにより親指で操作される操作手段とを備え、操作手段は、横長の形状を有し、形状の長手方向が、親指の付け根部分から先に向かう方向に対してほぼ垂直になるように配置されたキーを有することを特徴とする。

【0013】 手で保持されている状態において、手があたる部分の厚さを、手の形状に対応して、他の部分の厚さより薄く形成することができる。

【0014】 手があたる部分の表面に、突起物を設けることができる。

【0015】 本発明の携帯電話機においては、音声出力され、音声が入力され、ユーザにより親指で操作される操作手段とが備えられ、操作手段には、横長の形状を有し、形状の長手方向が、親指の付け根部分から先に向かう方向に対してほぼ垂直になるように配置されたキーが設けられている。

【0016】

【発明の実施の形態】 図 5 は、本発明の携帯電話機 21 の外観の構成例を示している。なお、図中、図 1 における場合と対応する部分については、同一の符号を付してあり、以下では、その説明は、適宜省略する。

【0017】 すなわち、この携帯電話機 21 には、図 1 の携帯電話機 1 の操作部 13 に代えて、操作部 22 が設けられている。

【0018】 操作部 22 のキー群 22A のキー a 1 乃至キー a 11 は、横長の形状で、その長手方向が、X 軸方向に対して所定の角度を有するように配置されている。

【0019】 長手方向の向き (キー a の傾き方向) は、操作部 22 を操作するために携帯電話機 21 を包むようにして保持した場合の親指の付け根の位置が、図 6 に示す点 A とすると、キー a が接触する、点 A を中心とする

7つの円a乃至円g上の接線方向に対応している。なお、円a乃至円gは、操作部22を操作する場合の親指の軌道に対応している。

【0020】キーa11は、円a、キーa8は、円b、キーa5、a10は、円c、キーa2、a4、a7は、円d、キーa9は、円e、キーa3、a6は、円f、そしてキーa1は、円g上の接線方向に対応している。

【0021】すなわち、図7に示すように、携帯電話機21を保持して、操作部22のキー群22Aを操作しても、図8に示すように、親指の付け根部分から指先の方
10 向が、キーaの長手方向に対して垂直にあたるようになるので、キーaを、親指の腹の部分で正確に押すことができる。すなわち、操作部22を正確に操作することができる。

【0022】図9は、本発明の携帯電話機21の他の外観の構成例を示している。なお、図中、図5における場合と対応する部分については、同一の符号を付してあり、以下では、その説明は、適宜省略する。

【0023】すなわち、この携帯電話機には、図5の携帯電話機21の本体2に代えて本体31から構成されて
20 いる。

【0024】本体31の表（おもて）面（図9（B））の右側（表右側ライン）の操作部22に対応する部分には、親指の母指球（付け根の丸み）部分がしっかりと当たるような、比較的浅い切り欠き部31Aが設けられている。なお、図中、表左側ラインは、表面の左側を示し、裏右側ラインは、裏面の、表面から見た場合の右側を示し、裏左側ラインは、裏面の、表面から見た場合の左側を示す。

【0025】本体31の裏面（図9（D））の中央部分
30 から下方にかけて切り欠き部31Bが設けられている。

【0026】この切り欠き部31Bの、携帯電話機21を包むように保持したときに、中指部分が当たる部分は、中指の腹の形状に対応する凹凸が形成されている。また切り欠き部31Bの、携帯電話機21を包むように保持したときに、薬指と小指が当たる部分は、薬指と小指の腹の形状に対応する凹凸が形成されている。なお、この例の場合、簡単のために、切り欠き部31Bには、最も深い凹部（深さa）、その次に深い凹部（深さ
40 b）、そして最も浅い凹部（深さc）の3段階の深さの凹部が形成されているが、実際には、無段階の深さで凹凸部が形成されている。

【0027】このように、携帯電話機21にあたる手の部分の形状に合わせて切り欠き部31A、Bを設けることで、ユーザは、携帯電話機21を確実に保持することができる。

【0028】また、切り欠き部31A、31Bの部分には、図10（A）、（B）に示すような、ゴムやプラスチック性の突起物が設けられている。なお、図10

（A）は、真上から見た突起物を示し、図10（B）は、真横から見た突起物を示している。

【0029】このように、切り欠き部31A、Bの表面に、突起物を設けることにより、携帯電話機21をさらに確実に保持することができる。

【0030】なお、以上においては、操作部22を有する携帯電話機21に、上述したような切り欠き部を設けた場合を例として説明したが、図11に示すように、操作部13を有する携帯電話機1にも適用することができる。

【0031】なお、以上においては、携帯電話機を例として説明したが、PHSなどにも適用することができる。

【0032】

【発明の効果】本発明を適用した携帯電話機によれば、横長の形状を有し、形状の長手方向が、親指の付け根部分から先に向かう方向に対してほぼ垂直になるように配置されたキーを操作手段に設けるようにしたので、適切に携帯電話機を操作することができる。

【図面の簡単な説明】

【図1】従来の携帯電話機1の外観の構成例を示す図である。

【図2】携帯電話機1を操作する場合の親指の状態を示す図である。

【図3】キーaの配置状態を説明する図である。

【図4】携帯電話機1のキーaを押す場合の親指の状態を説明する図である。

【図5】本発明を適用した携帯電話機21の外観の構成例を示す図である。

【図6】キーaの配置状態を説明する図である。

【図7】携帯電話機21を操作する場合の親指の状態を示す図である。

【図8】携帯電話機21のキーaを押す場合の親指の状態を説明する図である。

【図9】本発明を適用した携帯電話機21の他の外観の構成例を示す図である。

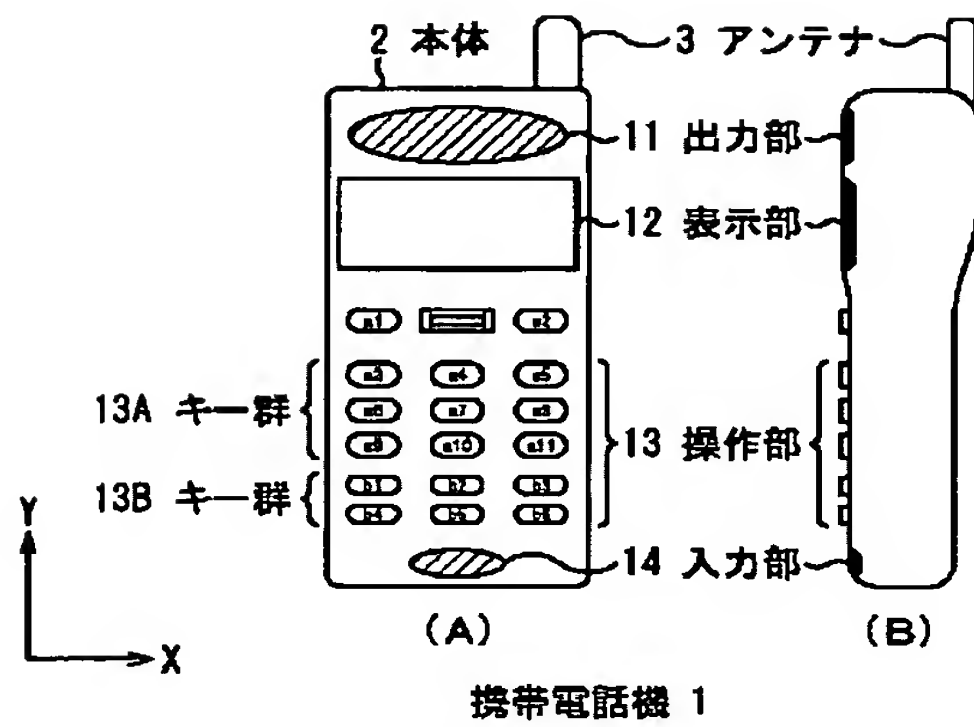
【図10】図9の切り欠き部31A、Bに設けられた突起部を示す図である。

【図11】携帯電話機1の他の外観の構成例を示す図である。

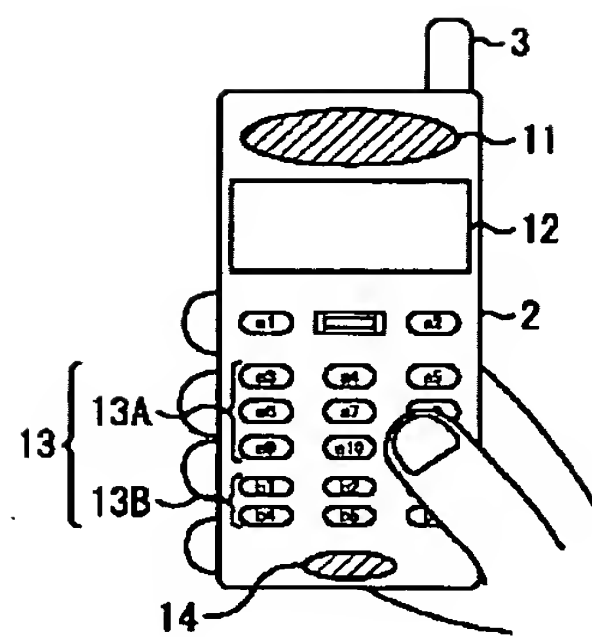
【符号の説明】

21 携帯電話機, 22 操作部, 31 本体,
31A 切り欠き部, 31B 切り欠き部

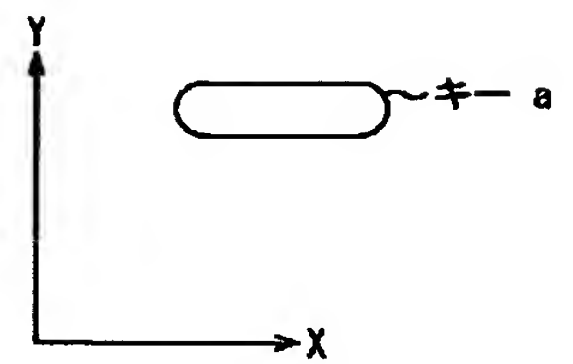
【図1】



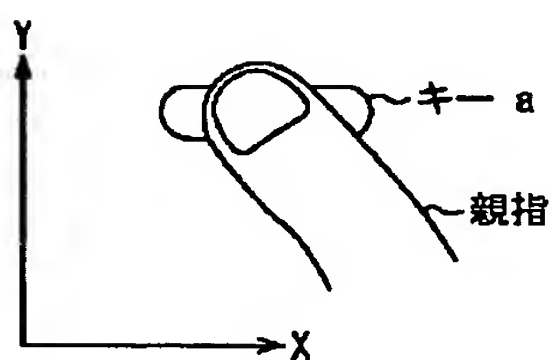
【図2】



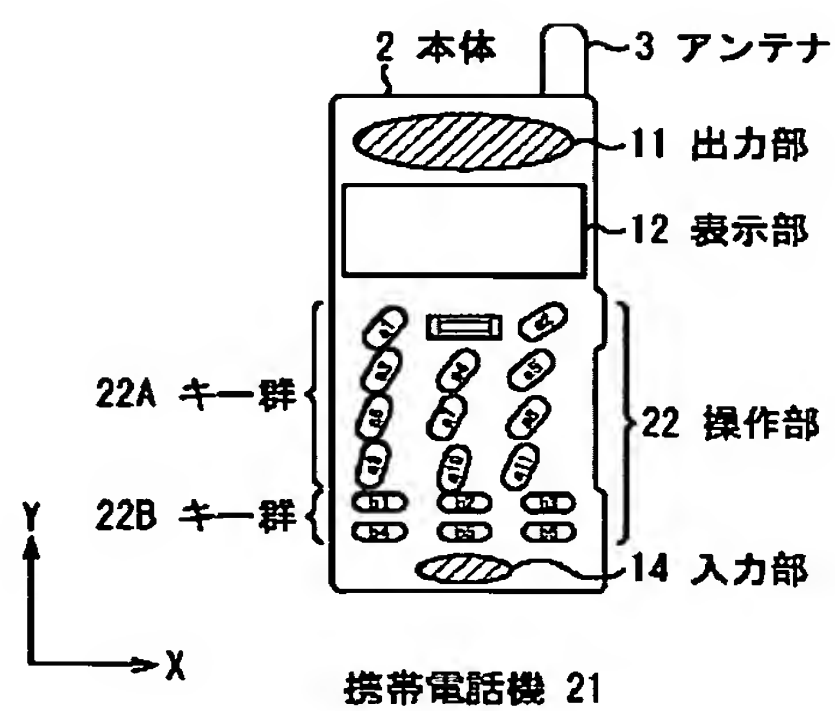
【図3】



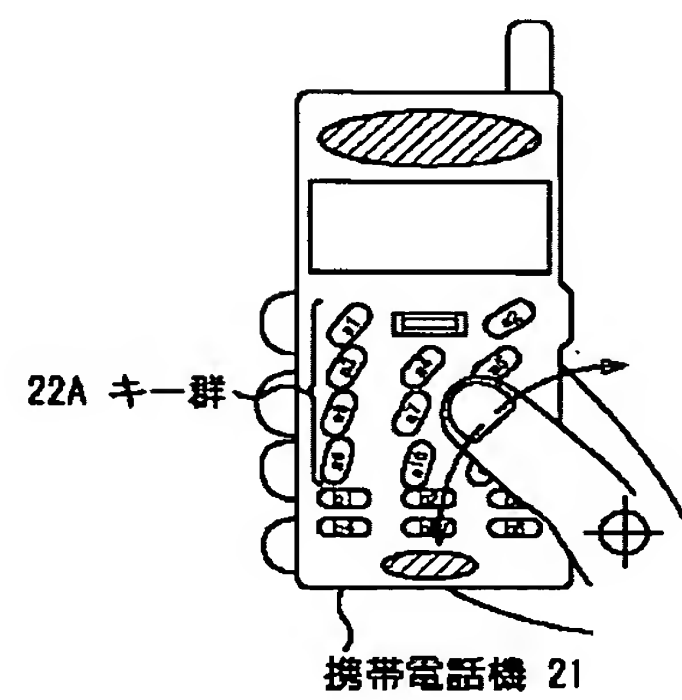
【図4】



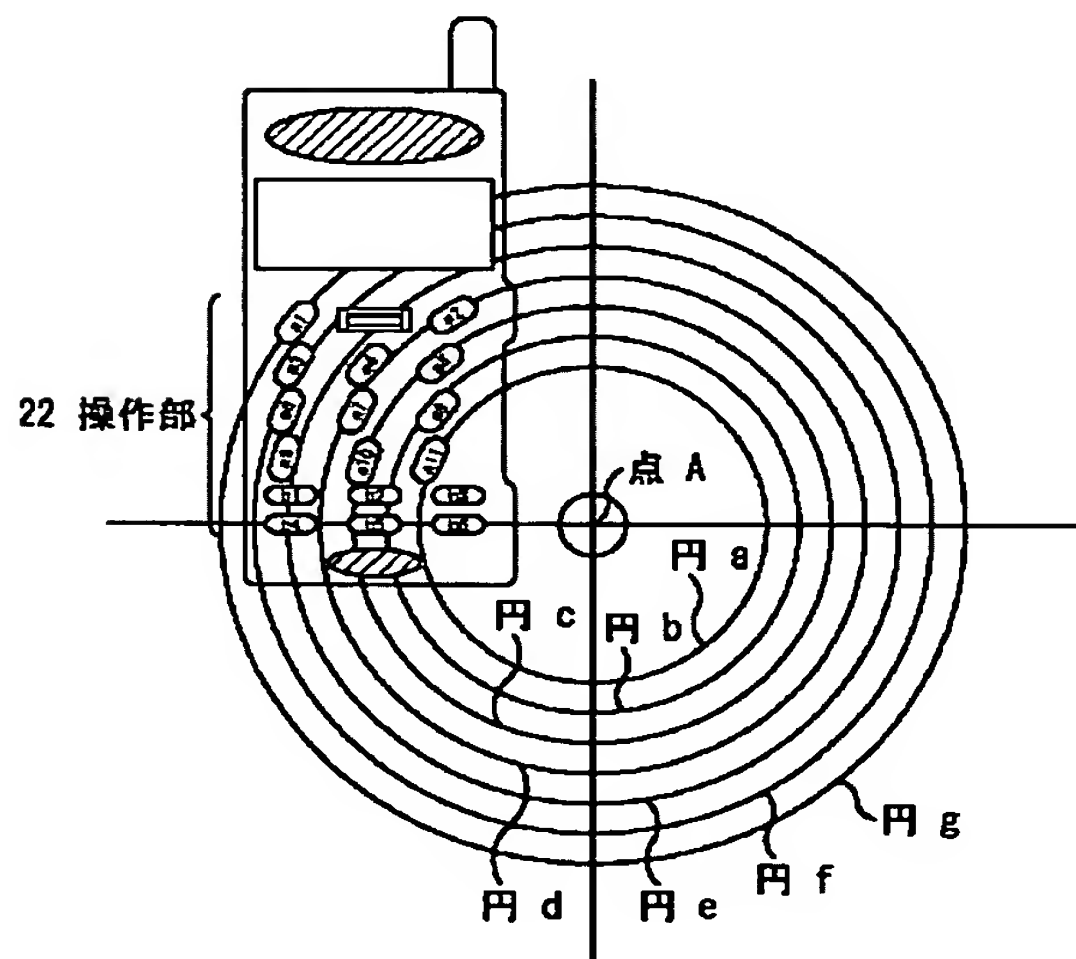
【図5】



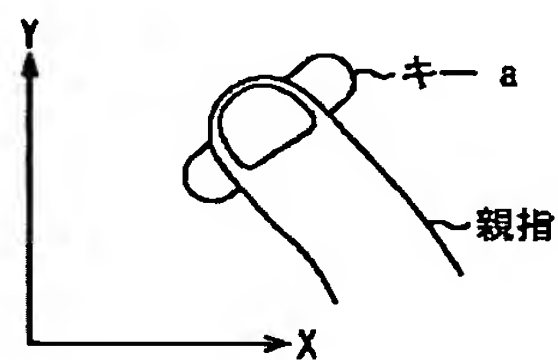
【図7】



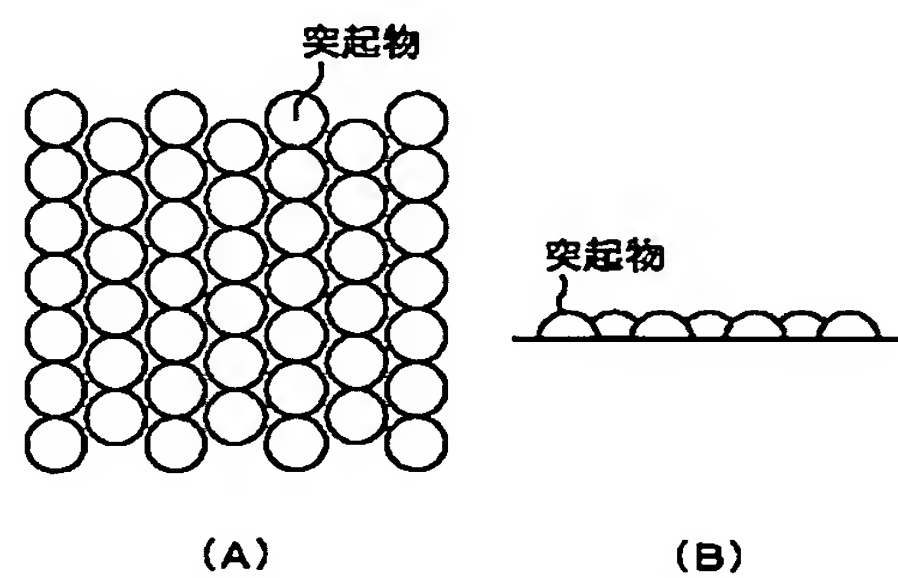
【図6】



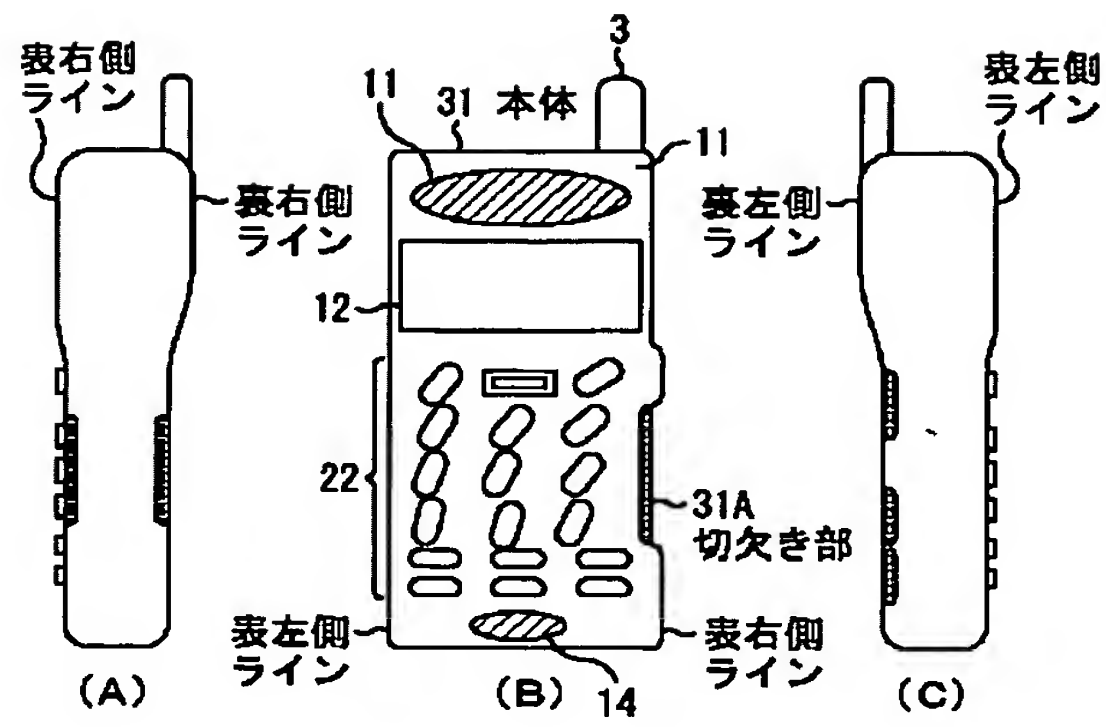
【図8】



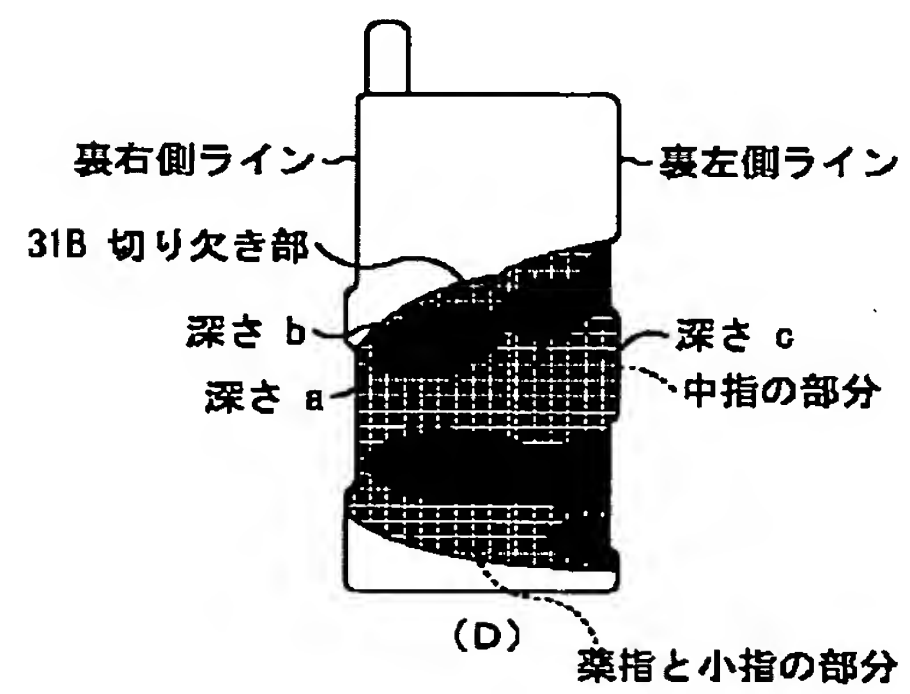
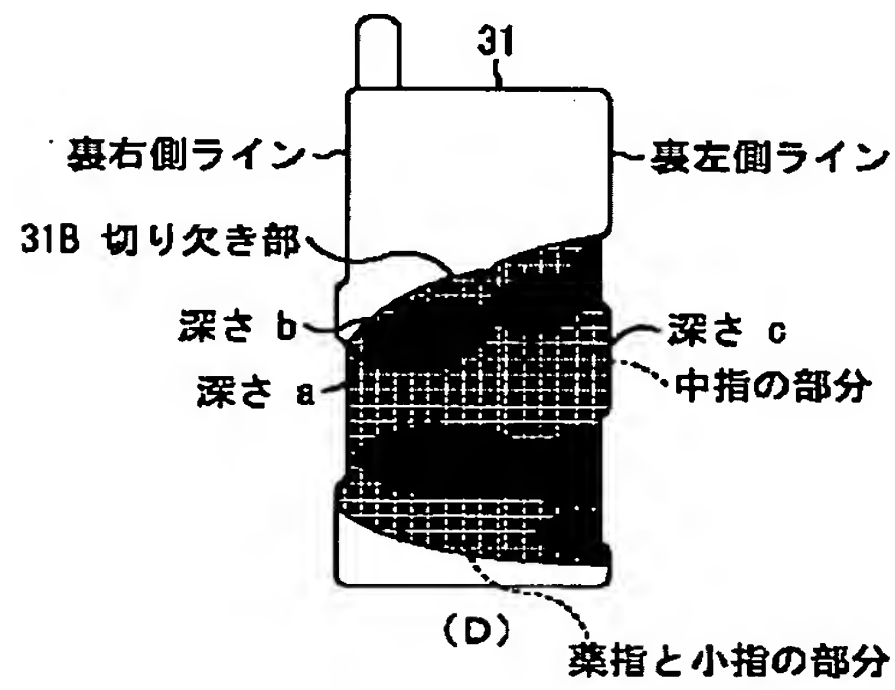
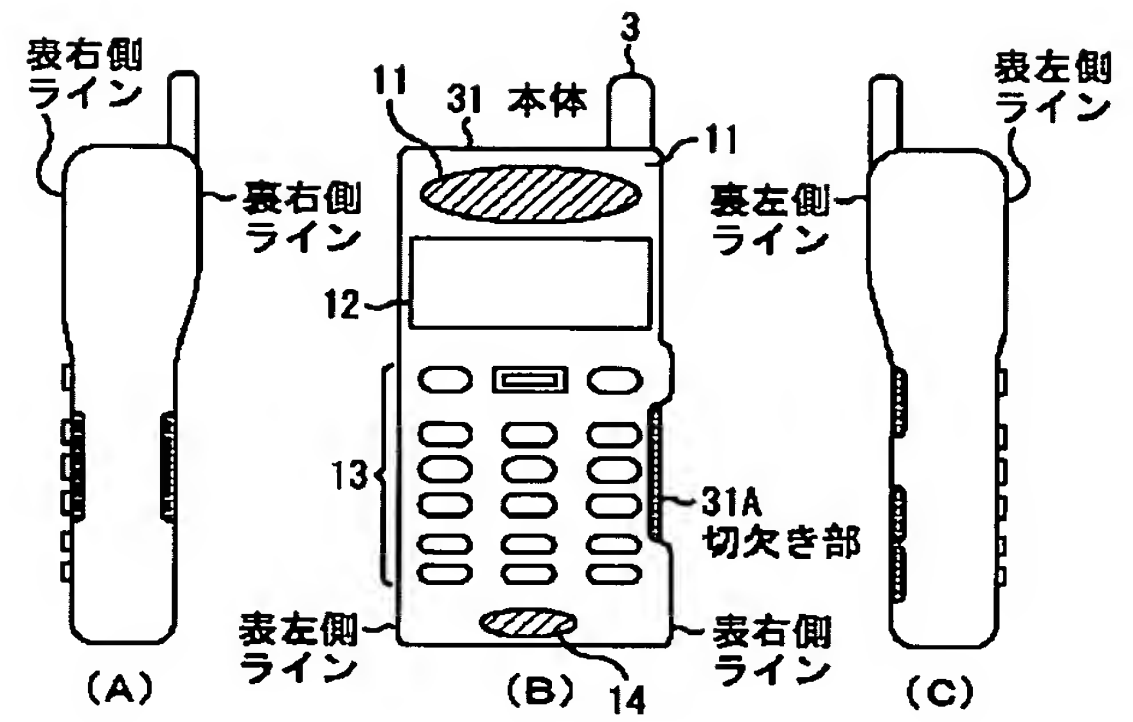
【図10】



【図 9】



【図 11】



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CLAIMS

[Claim(s)]

[Claim 1]A portable telephone which is held by user by one hand and operated with the thumb of the hand, comprising:

An output means which outputs a sound.

An input means which inputs a sound.

A key arranged so that it may have a control means operated by user with the thumb, said control means may have oblong shape and a longitudinal direction of said shape may become almost vertical to a direction which goes previously from a root part of said thumb.

[Claim 2]The portable telephone according to claim 1, wherein thickness of a portion equivalent to which said hand is is formed in the state where it is held by said hand, corresponding to shape of said hand more thinly than thickness of other portions.

[Claim 3]The portable telephone according to claim 2, wherein a projection is provided in the surface of a portion on which said hand hits.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention relates to the portable telephone it enabled it to operate appropriately with the thumb especially about a portable telephone.

[0002]

[Description of the Prior Art]Drawing 1 shows the appearance of the conventional portable telephone 1. Drawing 1 (A) expresses a front view and drawing 1 (B) expresses the left side view, respectively.

[0003]This portable telephone 1 comprises the antenna 3 attached to the upper surface of the main part 2 and the main part 2.

[0004]To the transverse plane of the main part 2, it applies caudad from the upper part, and the outputting part 11, the indicator 12, the final controlling element 13, and the input part 14 are arranged in order at it.

[0005]The outputting part 11 comprises a loudspeaker etc.

A sound is outputted.

The indicator 12 comprises LCD etc.

The variety of information shown to a user is displayed.

[0006]The final controlling elements 13 are the key a1 thru/or the keys a11 (hereafter, when it is not necessary to distinguish separately, the key a is only called.), such as a function key and a ten key. It comprises the key group 13A which consists of being the same about other cases, and the key group 13B which consists of the keys b1 thru/or b6, such as dispatch, an end, or a re-dialing key. The input part 14 comprises a microphone etc.

A user's sound is incorporated.

[0007]Drawing 2 shows the state of the thumb in the case of operating the key group 13A of the final controlling element 13 of the portable telephone 1.

[0008]At this time, a user holds so that the portable telephone 1 may be wrapped in one hand (in the case of this example right hand). And focusing on the root part of the thumb, a user moves the tip of the thumb so that a circle may be drawn, he hits against the key a of a request of the portion inside the point of the thumb, and the portion of what is called a belly, and pushes it. Thus, the key group 13A of the final controlling element 13 is operated.

[0009]

[Problem(s) to be Solved by the Invention]By the way, as usually shown in drawing 1 and drawing 3 which is the enlarged drawings of the one key a, each key a of the key group 13A of the final controlling element 13 is oblong shape, and it is arranged so that the longitudinal direction may turn into an X axial direction of the main part 2 in parallel.

[0010]That is, since the portion of the inside of the thumb will hit aslant to the key a as shown in drawing 4 if the key group 13A of the final controlling element 13 is operated as mentioned above, the key a cannot be pressed correctly. From this, the technical problem which cannot operate appropriately the final controlling element 13 (key group 13A) occurred with the portable telephone 1.

[0011]This invention is made in view of such a situation, and enables it to operate the final controlling element 13 appropriately.

[0012]

[Means for Solving the Problem]A portable telephone of this invention is provided with an output means which outputs a sound, an input means which inputs a sound, and a control means operated by user with the thumb, and a control means, It has oblong shape and has a key arranged so that a longitudinal direction of shape may become almost vertical to a direction which goes previously from a root part of the thumb.

[0013]In the state where it is held by hand, thickness of a portion equivalent to which a hand is can be formed corresponding to shape of a hand more thinly than thickness of other portions.

[0014]A projection can be provided in the surface of a portion on which a hand hits.

[0015]In a portable telephone of this invention, a sound is outputted, a sound is inputted, and a control means operated by user with the thumb is provided with it, and to a control means. It has oblong shape and a key arranged so that a longitudinal direction of shape may become almost vertical to a direction which goes previously from a root part of the thumb is provided.

[0016]

[Embodiment of the Invention]Drawing 5 shows the example of composition of the appearance of the portable telephone 21 of this invention. About the case in drawing 1, and the corresponding portion, the same numerals are attached among the figure, and, below, the explanation is omitted suitably.

[0017]That is, it replaces with the final controlling element 13 of the portable telephone 1 of drawing 1, and the final controlling element 22 is formed in this portable telephone 21.

[0018]The key a1 thru/or the key a11 of the key group 22A of the final controlling element 22 is oblong shape, and it is arranged so that the longitudinal direction may have a predetermined angle to an X axial direction.

[0019]Direction (inclination direction of the key a) of a longitudinal direction supports the tangential direction on the seven circles a centering on the point A that the key a contacts thru/or the circle g, if the position of the root of the thumb at the time of holding it as the portable telephone 21 was wrapped makes it the point A shown in drawing 6 in order to operate the final controlling element 22. The circle a thru/or the circle g support the orbit of the thumb in the case of operating the final controlling element 22.

[0020]the key a11 -- the circle a and the key a8 -- the circle c, the key a2, a4, and a7 correspond to the circle d, as for the key a9, the circle e, the key a3, and a6 correspond to the circle f, and the key a1 supports [the circle b, the key a5, and a10] the tangential direction on the circle g.

[0021]That is, since the direction of a fingertip comes to hit from the root part of the thumb vertically to the longitudinal direction of the key a as shown in drawing 8 even if the portable telephone 21 is held and it operates the key group 22A of the final controlling element 22, as shown in drawing 7, the key a can be correctly pressed in the portion of the inside of the thumb. That is, the final controlling element 22 can be operated correctly.

[0022]Drawing 9 shows the example of composition of other appearance of the portable telephone 21 of this invention. About the case in drawing 5, and the corresponding portion, the same numerals are attached among the figure, and, below, the explanation is omitted suitably.

[0023]That is, it replaces with the main part 2 of the portable telephone 21 of drawing 5, and the main parts 31 are consisted of by this portable telephone.

[0024]The comparatively shallow notch section 31A that the thenar (radius of circle of the root) portion of the thumb hits firmly is formed in the portion corresponding to the final controlling element 22 on the right-hand side of the table (bow) side (drawing 9 (B)) of the main part 31 (front right side line). A front left side line shows surface left-hand side among a figure, a back right side line shows the right-hand side at the time of seeing from the surface on the back, and a back left side line shows the left-hand side at the time of seeing from the surface on the back.

[0025]It applies caudad from the center portion of the rear face (drawing 9 (D)) of the main part 31, and the notch section 31B is formed.

[0026]When it holds so that the portable telephone 21 of this notch section 31B may be wrapped, the unevenness corresponding to the shape of the inside of the middle finger in the portion equivalent to which a middle finger portion is is formed. When it holds so that the

portable telephone 21 of the notch section 31B may be wrapped, the unevenness corresponding to the shape of the inside of the third finger and a digitus minimus in the portion equivalent to which the third finger and a digitus minimus are is formed. In the case of this example, since it is easy, the deepest crevice (depth a), the crevice (depth b) deep to that next, and the crevice of the depth of the three-stage of the shallowest crevice (depth c) are formed in the notch section 31B, but the uneven part is actually formed in the depth of the stepless story.

[0027]Thus, the user can hold the portable telephone 21 certainly by providing the notch section 31A and B according to the shape of the portion of the hand of hitting the portable telephone 21.

[0028]The projection of rubber as shown in drawing 10 (A) and (B), or brass tic nature is provided in the portion of the notch sections 31A and 31B. Drawing 10 (A) shows the projection seen from right above, and drawing 10 (B) shows the projection seen from just beside.

[0029]Thus, the portable telephone 21 can be held still more certainly by providing a projection in the notch section 31A and the surface of B.

[0030]Although the case where a notch section which was mentioned above to the portable telephone 21 which has the final controlling element 22 above was provided was explained as an example, as shown in drawing 11, it is applicable also to the portable telephone 1 which has the final controlling element 13.

[0031]Although the portable telephone was explained above as an example, it is applicable to PHS etc.

[0032]

[Effect of the Invention]Since according to the portable telephone which applied this invention it has oblong shape and the longitudinal direction of shape provided the key arranged so that it may become almost vertical to the direction which goes previously from the root part of the thumb in the control means, a portable telephone can be operated appropriately.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention relates to the portable telephone it enabled it to operate appropriately with the thumb especially about a portable telephone.

[0002]

[Description of the Prior Art]Drawing 1 shows the appearance of the conventional portable telephone 1. Drawing 1 (A) expresses a front view and drawing 1 (B) expresses the left side view, respectively.

[0003]This portable telephone 1 comprises the antenna 3 attached to the upper surface of the main part 2 and the main part 2.

[0004]To the transverse plane of the main part 2, it applies caudad from the upper part, and the outputting part 11, the indicator 12, the final controlling element 13, and the input part 14 are arranged in order at it.

[0005]The outputting part 11 comprises a loudspeaker etc.

A sound is outputted.

The indicator 12 comprises LCD etc.

The variety of information shown to a user is displayed.

[0006]The final controlling elements 13 are the key a1 thru/or the keys a11 (hereafter, when it is not necessary to distinguish separately, the key a is only called.), such as a function key and a ten key. It comprises the key group 13A which consists of being the same about other cases, and the key group 13B which consists of the keys b1 thru/or b6, such as dispatch, an end, or a re-dialing key. The input part 14 comprises a microphone etc.

A user's sound is incorporated.

[0007]Drawing 2 shows the state of the thumb in the case of operating the key group 13A of the final controlling element 13 of the portable telephone 1.

[0008]At this time, a user holds so that the portable telephone 1 may be wrapped in one hand (in the case of this example right hand). And focusing on the root part of the thumb, a user moves the tip of the thumb so that a circle may be drawn, he hits against the key a of a request of the portion inside the point of the thumb, and the portion of what is called a belly, and pushes it. Thus, the key group 13A of the final controlling element 13 is operated.

[0009]

[Problem(s) to be Solved by the Invention]By the way, as usually shown in drawing 1 and drawing 3 which is the enlarged drawings of the one key a, each key a of the key group 13A of the final controlling element 13 is oblong shape, and it is arranged so that the longitudinal direction may turn into an X axial direction of the main part 2 in parallel.

[0010]That is, since the portion of the inside of the thumb will hit aslant to the key a as shown in drawing 4 if the key group 13A of the final controlling element 13 is operated as mentioned above, the key a cannot be pressed correctly. From this, the technical problem which cannot operate appropriately the final controlling element 13 (key group 13A) occurred with the portable telephone 1.

[0011]This invention is made in view of such a situation, and enables it to operate the final controlling element 13 appropriately.

[0012]

[Means for Solving the Problem]A portable telephone of this invention is provided with an output means which outputs a sound, an input means which inputs a sound, and a control means operated by user with the thumb, and a control means, It has oblong shape and has a key arranged so that a longitudinal direction of shape may become almost vertical to a direction which goes previously from a root part of the thumb.

[0013]In the state where it is held by hand, thickness of a portion equivalent to which a hand is can be formed corresponding to shape of a hand more thinly than thickness of other portions.

[0014]A projection can be provided in the surface of a portion on which a hand hits.

[0015]In a portable telephone of this invention, a sound is outputted, a sound is inputted, and a control means operated by user with the thumb is provided with it, and to a control means. It has oblong shape and a key arranged so that a longitudinal direction of shape may become almost vertical to a direction which goes previously from a root part of the thumb is provided.

[0016]

[Embodiment of the Invention]Drawing 5 shows the example of composition of the appearance of the portable telephone 21 of this invention. About the case in drawing 1, and the corresponding portion, the same numerals are attached among the figure, and, below, the explanation is omitted suitably.

[0017]That is, it replaces with the final controlling element 13 of the portable telephone 1 of drawing 1, and the final controlling element 22 is formed in this portable telephone 21.

[0018]The key a1 thru/or the key a11 of the key group 22A of the final controlling element 22 is oblong shape, and it is arranged so that the longitudinal direction may have a predetermined angle to an X axial direction.

[0019]Direction (inclination direction of the key a) of a longitudinal direction supports the tangential direction on the seven circles a centering on the point A that the key a contacts thru/or the circle g, if the position of the root of the thumb at the time of holding it as the portable telephone 21 was wrapped makes it the point A shown in drawing 6 in order to operate the final controlling element 22. The circle a thru/or the circle g support the orbit of the thumb in the case of operating the final controlling element 22.

[0020]the key a11 -- the circle a and the key a8 -- the circle c, the key a2, a4, and a7 correspond to the circle d, as for the key a9, the circle e, the key a3, and a6 correspond to the circle f, and the key a1 supports [the circle b, the key a5, and a10] the tangential direction on the circle g.

[0021]That is, since the direction of a fingertip comes to hit from the root part of the thumb vertically to the longitudinal direction of the key a as shown in drawing 8 even if the portable telephone 21 is held and it operates the key group 22A of the final controlling element 22, as shown in drawing 7, the key a can be correctly pressed in the portion of the inside of the thumb. That is, the final controlling element 22 can be operated correctly.

[0022]Drawing 9 shows the example of composition of other appearance of the portable telephone 21 of this invention. About the case in drawing 5, and the corresponding portion, the same numerals are attached among the figure, and, below, the explanation is omitted suitably.

[0023]That is, it replaces with the main part 2 of the portable telephone 21 of drawing 5, and the main parts 31 are consisted of by this portable telephone.

[0024]The comparatively shallow notch section 31A that the thenar (radius of circle of the root) portion of the thumb hits firmly is formed in the portion corresponding to the final controlling element 22 on the right-hand side of the table (bow) side (drawing 9 (B)) of the main part 31 (front right side line). A front left side line shows surface left-hand side among a figure, a back right side line shows the right-hand side at the time of seeing from the surface on the back, and a back left side line shows the left-hand side at the time of seeing from the surface on the back.

[0025]It applies caudad from the center portion of the rear face (drawing 9 (D)) of the main part 31, and the notch section 31B is formed.

[0026]When it holds so that the portable telephone 21 of this notch section 31B may be wrapped, the unevenness corresponding to the shape of the inside of the middle finger in the portion equivalent to which a middle finger portion is is formed. When it holds so that the

portable telephone 21 of the notch section 31B may be wrapped, the unevenness corresponding to the shape of the inside of the third finger and a digitus minimus in the portion equivalent to which the third finger and a digitus minimus are is formed. In the case of this example, since it is easy, the deepest crevice (depth a), the crevice (depth b) deep to that next, and the crevice of the depth of the three-stage of the shallowest crevice (depth c) are formed in the notch section 31B, but the uneven part is actually formed in the depth of the stepless story.

[0027]Thus, the user can hold the portable telephone 21 certainly by providing the notch section 31A and B according to the shape of the portion of the hand of hitting the portable telephone 21.

[0028]The projection of rubber as shown in drawing 10 (A) and (B), or brass tic nature is provided in the portion of the notch sections 31A and 31B. Drawing 10 (A) shows the projection seen from right above, and drawing 10 (B) shows the projection seen from just beside.

[0029]Thus, the portable telephone 21 can be held still more certainly by providing a projection in the notch section 31A and the surface of B.

[0030]Although the case where a notch section which was mentioned above to the portable telephone 21 which has the final controlling element 22 above was provided was explained as an example, as shown in drawing 11, it is applicable also to the portable telephone 1 which has the final controlling element 13.

[0031]Although the portable telephone was explained above as an example, it is applicable to PHS etc.

[0032]

[Effect of the Invention]Since according to the portable telephone which applied this invention it has oblong shape and the longitudinal direction of shape provided the key arranged so that it may become almost vertical to the direction which goes previously from the root part of the thumb in the control means, a portable telephone can be operated appropriately.

[Translation done.]

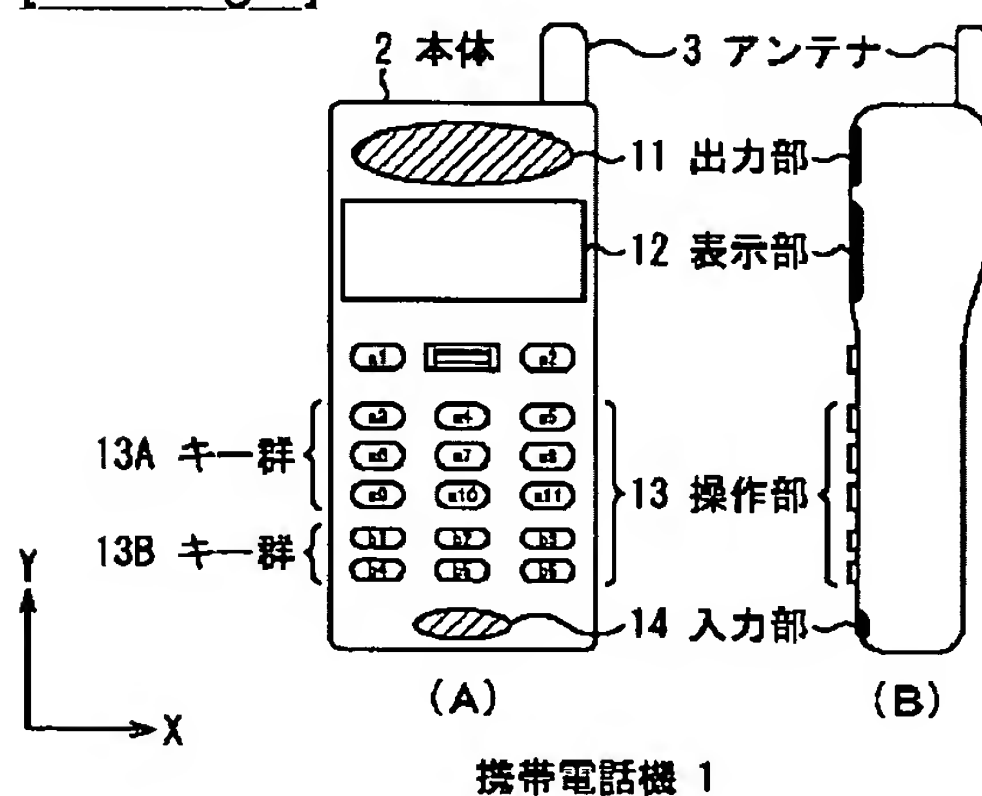
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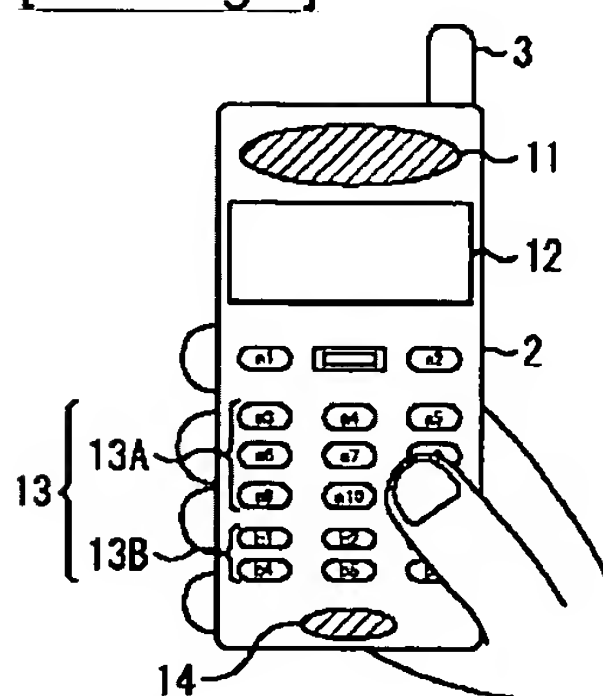
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DRAWINGS

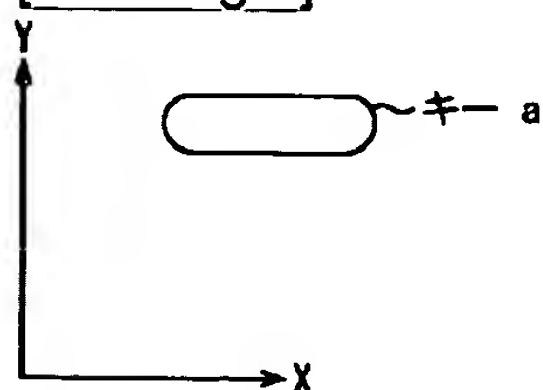
[Drawing 1]



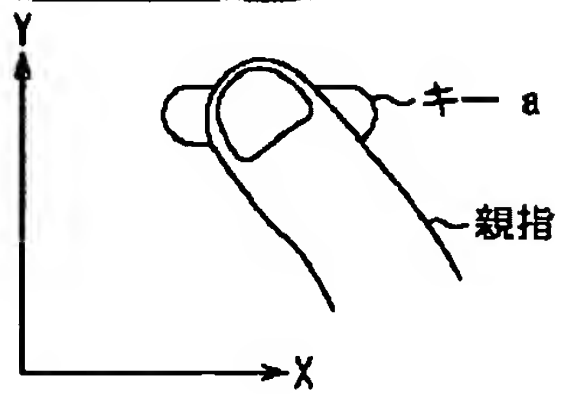
[Drawing 2]



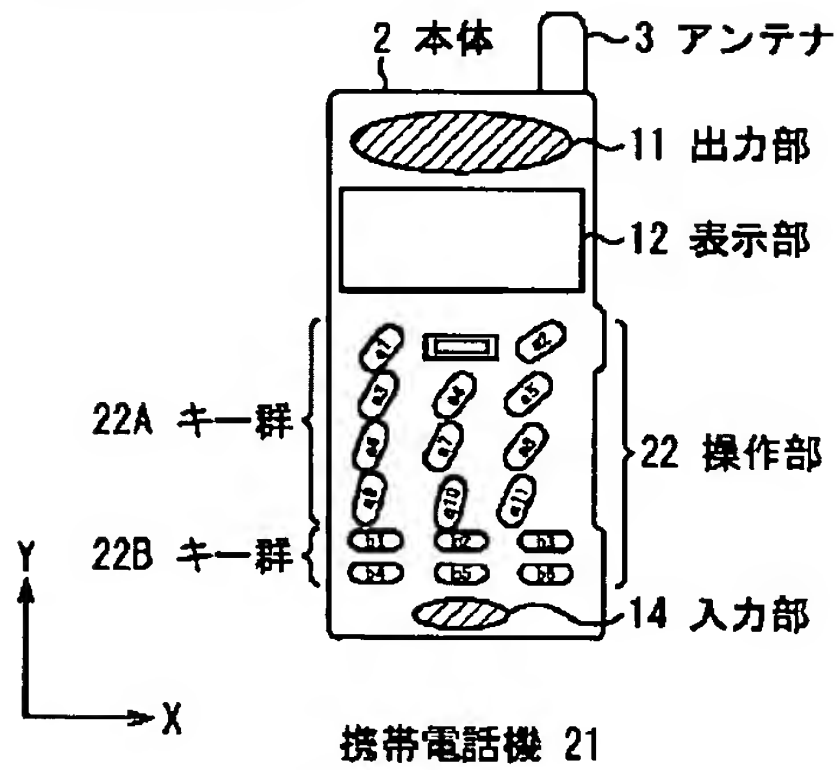
[Drawing 3]



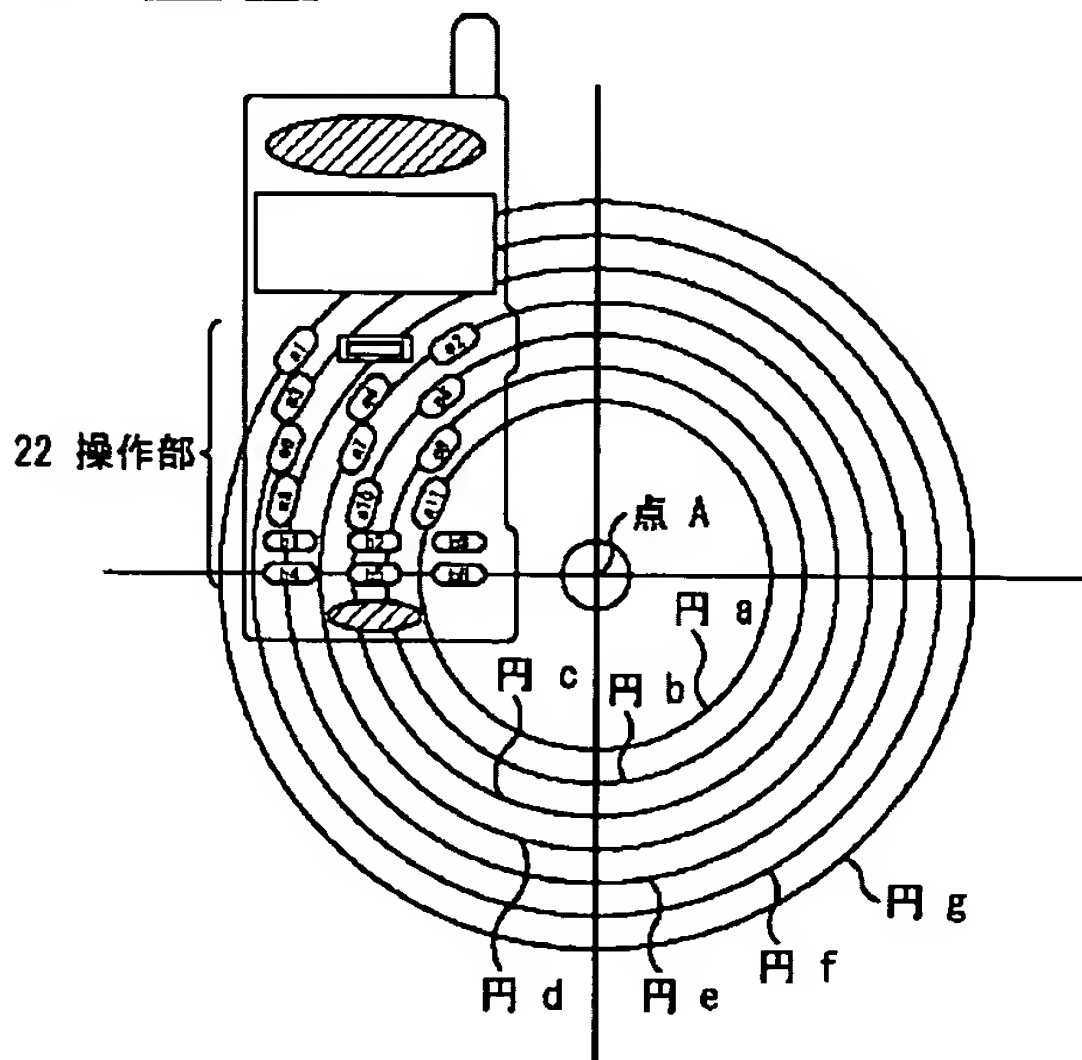
[Drawing 4]



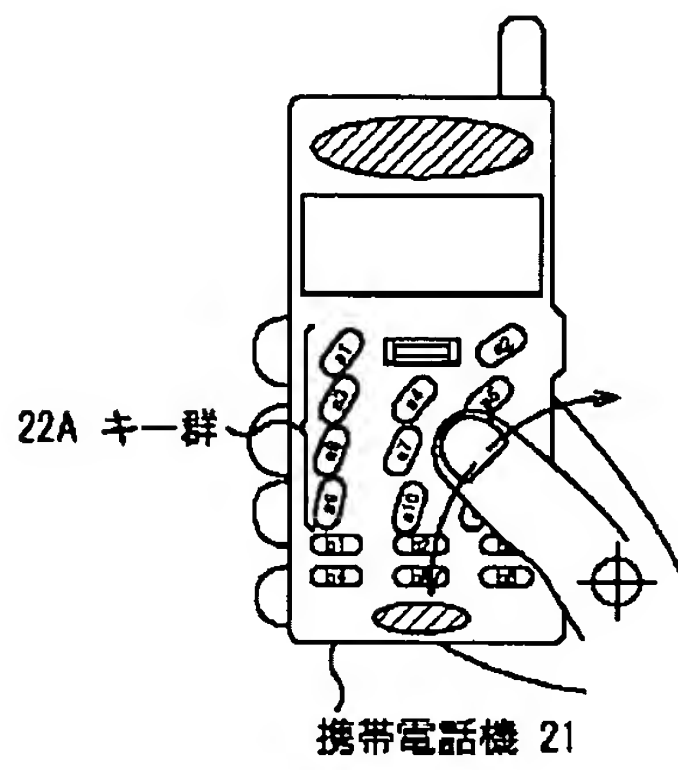
[Drawing 5]



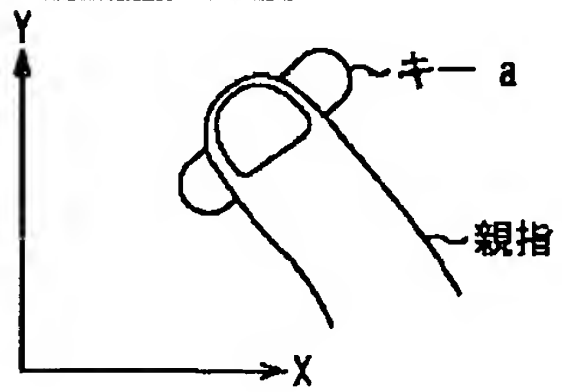
[Drawing 6]



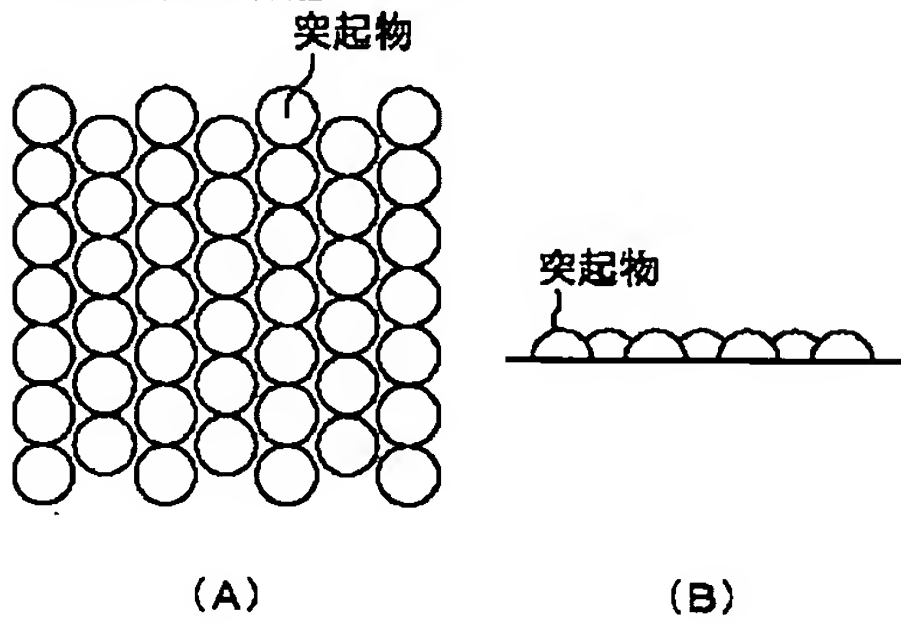
[Drawing 7]



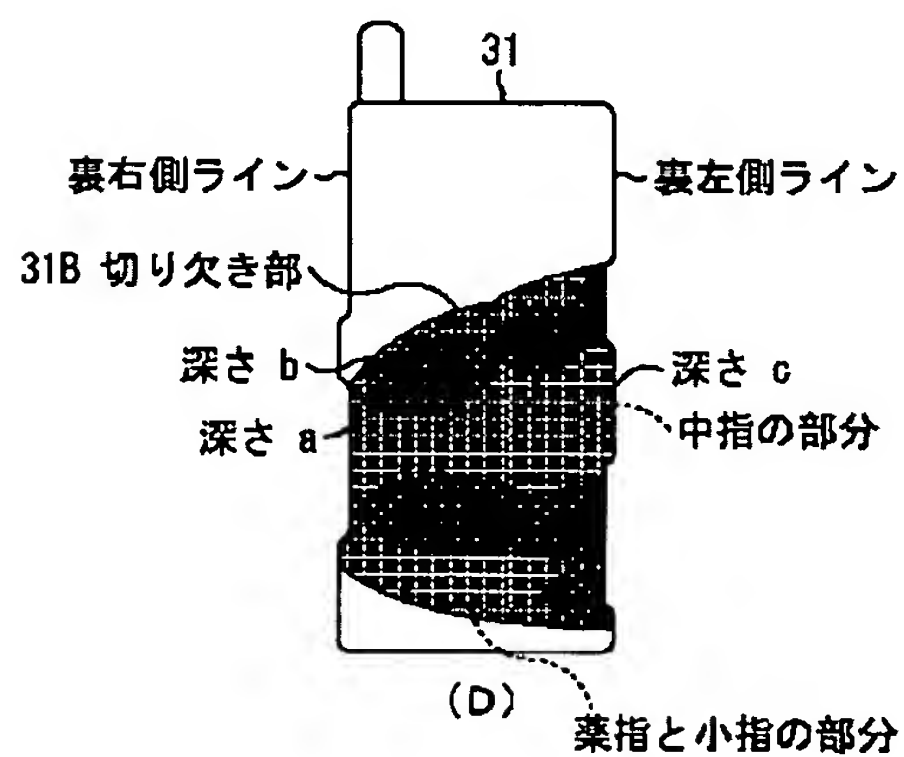
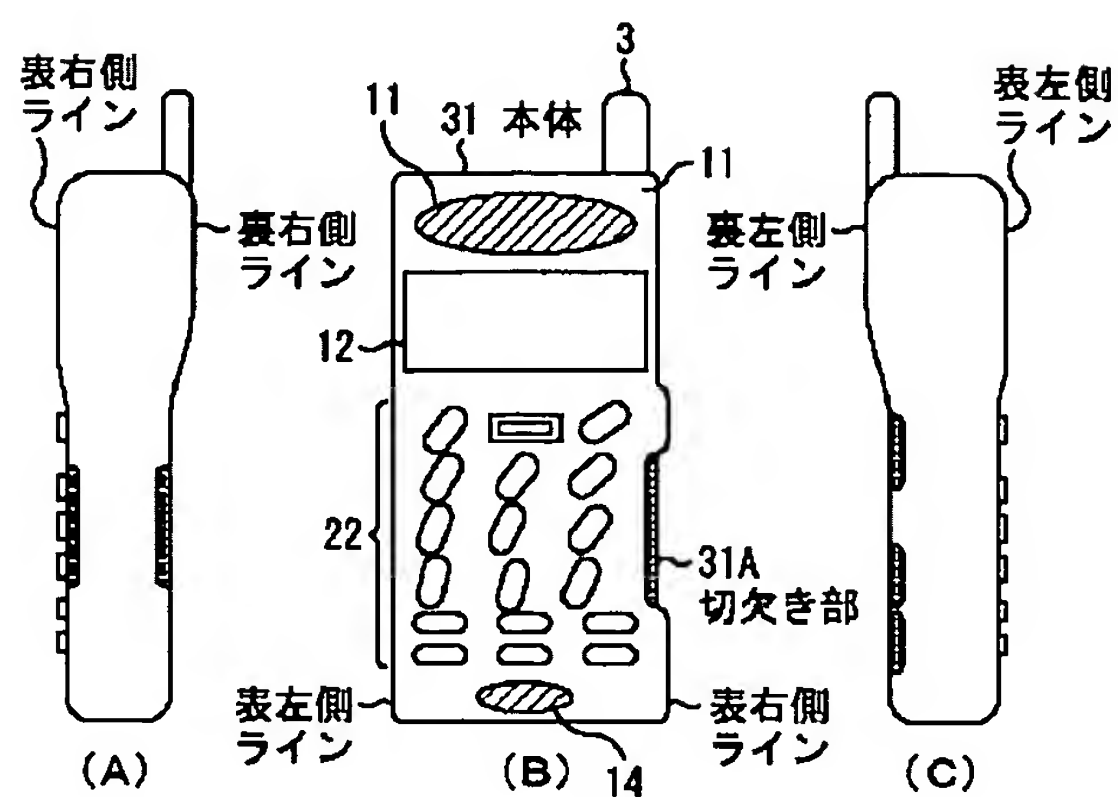
[Drawing 8]



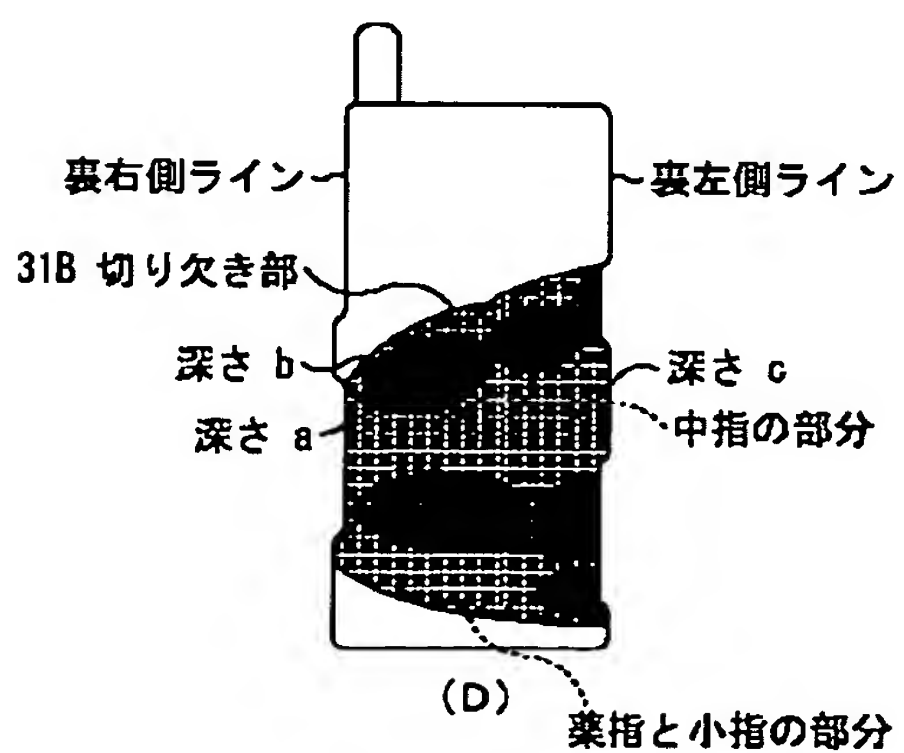
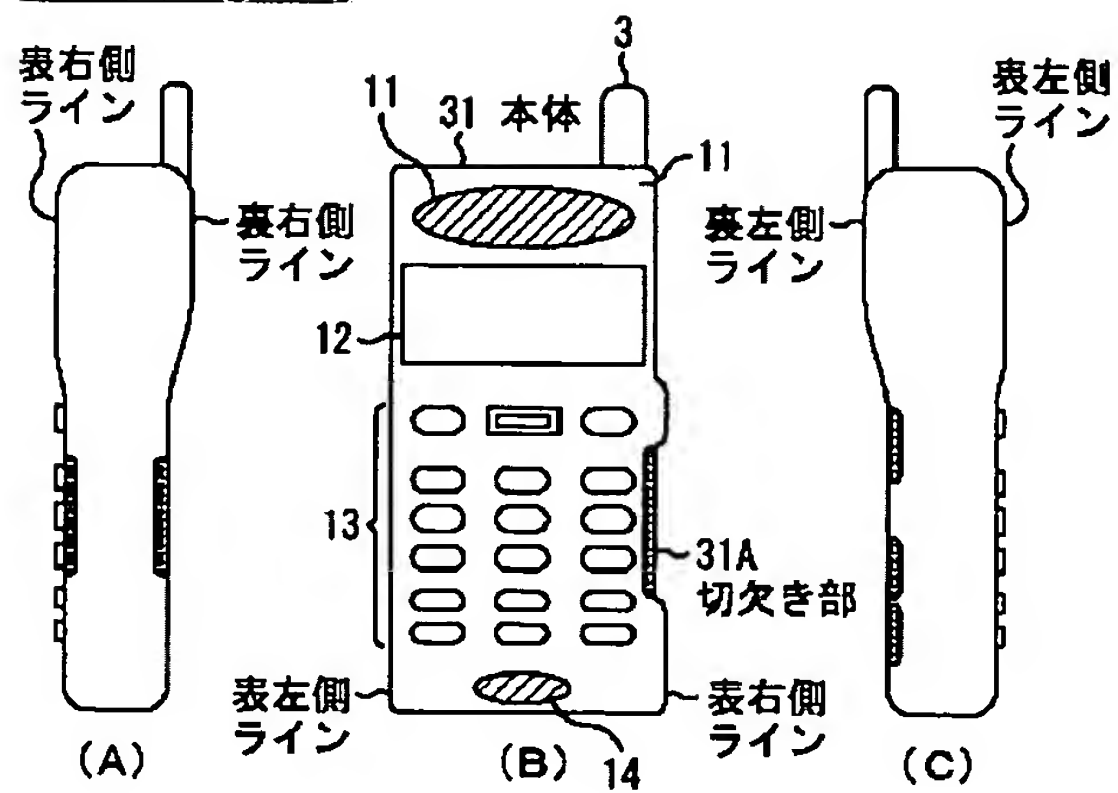
[Drawing 10]



[Drawing 9]



[Drawing 11]



[Translation done.]